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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/644,097

08/20/2003

Kirill Sokolov

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04/06/2005

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EXAMINER

BLACKMAN, ROCHELLE ANN J

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/644,097

**Applicant(s)**

SOKOLOV, KIRILL

**Examiner**

Rochelle Blackman

**Art Unit**

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1-41 is/are allowed.  
6) ☒ Claim(s) 42-44 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-44 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

Claim 43 is objected to because of the following informalities: the claim recites the limitation "the light source" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 42-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Yano (U.S. Patent Application Publication No. 2001/0021004).

Regarding claims 42 and 43, Yano discloses an apparatus (see FIGS. 1-43) comprising: an illumination system (see 2 of FIGS. 3-15) to emit white light having light of a predetermined wavelength band; a plurality of prisms (see 4 of FIGS. 3-15), each coated with a cholesteric liquid crystal film, to convert the light of the predetermined

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wavelength band to a first polarization component (see description of element 4 on pgs. 3-4, paragraph [0068]); and a color recycling system (see 7a-b, 8, 9, 10, 14, 15, 16, and 20 in FIGS. 3-15, different combinations of some these elements are used in the different embodiments of FIGS. 3-15), to separate the light of the predetermined wavelength band into a first color light and a second color light (for example, blue and green), transmit and reflect the first and second color lights, to convert a third color light (for example, red) to have a second polarization component, and transmit the third color light so that a fourth color light, that is a mixture of the first and third color lights, and a fifth color light, that is a mixture of the second and third color lights, progress in different optical paths (for example, element 8, which is a color switching element or device, separates prime color components into magenta and yellow – see pg. 8, paragraphs [0120]-[0123]); further comprising a screen (see *screen* on pg. 5, paragraph [0080]) to receive the first through third color lights projected thereon and display an image without losing the white light emitted from the light source.

Regarding claim 44, Yano discloses an apparatus comprising: a screen (see *screen* on pg. 5, paragraph [0080]) to receive yellow and magenta lights from a plurality of reflective panels and to combine the yellow and magenta lights into a unified image (This limitation is considered to be an intended use of the screen. Since the screen is capable of “receiving yellow and magenta lights from a plurality of reflective panels and to combine the yellow and magenta light into a unified image”, it meets the limitation as claimed.), the reflective panels forming a shadow zone formed therebetween in which

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the yellow and magenta lights are not reflected (the "reflective panels" are not positively recited as part of the apparatus and therefore do not further limit the apparatus).

### ***Allowable Subject Matter***

1. Claims 1-41 are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-41 have been found to be allowable because the prior art of record either alone or in combination neither discloses nor makes obvious the projection apparatus comprising the feature of the third color light in the fourth and fifth color light being directed to the third reflective panel in an optical path conversion system that splits the optical paths of the fourth and fifth color lights, in combination with the fourth color light output from the optical path conversion system and the fifth color light output from the optical path conversion system being projected on the screen, further in combination with the other particular combination of features recited in claim 1.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RB

  
JUDY NGUYEN  
SUPERVISORY PATENT EXAMINER